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19 January 2022

Nancy Marconi, Registrar
Ontario Energy Board

VIA RESS AND EMAIL

Dear Ms Marconi:

Re: EB-2021-0002 – EGI 2022-2027 DSM – GEC/ED IRRs to SEC Interrogatories

Please find interrogatory responses filed by GEC-ED in response to IRs from Schools on the evidence of Energy Futures Group.

Sincerely,

Cc: All parties

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GEC/ED Responses of Energy Futures Group to SEC Interrogatories

3.SEC.1.GEC/ED.1

[Ex. L.GEC/ED.1, p. 10-12] Please comment on

a) whether the savings rates cited are calculated on a comparable basis,
b) whether the utilities listed are representative of typical savings rates in U.S. jurisdictions, and
c) the extent, if any, to which the lower Enbridge savings rates can be attributed to Enbridge's long history of successful DSM programs.

Response:

a) Yes. We focused only on utilities in cold climates. We also controlled for both the size of the utility and approaches in some jurisdictions to exclude some customers from DSM efforts by expressing savings as a percent of eligible sales. We also note differences in the life of savings in each jurisdiction.
b) The utilities listed in Table 1 are leaders in the U.S. Thus, they are not representative of "typical" savings rates. We would suggest that there isn't a "typical" savings rate. They vary quite a bit from state to state, primarily based on the policies of each jurisdiction.
c) We do not believe that Enbridge's long DSM history is a significant factor in their lower savings rates. Indeed, at least some of the leading utilities that we reference have been running gas efficiency programs for as long or longer than Enbridge. Furthermore, a long history of efficiency programs may actually help rather than hinder the ability to achieve high levels of savings. While it is true that a long history likely means that high levels of market penetration may have been achieved for some measures (lowering potential), it is also likely that a long history means many customers, trade allies and others are more tuned into efficiency and therefore more likely to identify and pursue new opportunities and approaches than in jurisdictions with less experience with DSM.

5.SEC.1.GEC/ED.1

[Ex. L.GEC/ED.1, p. 19-20, 28, 32] Please provide the expert's view on whether it is appropriate to make shareholder incentives conditional on actual measured reductions in natural gas use in Ontario, and if so

a) Whether any such requirement should apply by rate class or grouping of customers,

b) Whether any such requirement should be weather normalized, or measured by average use per customer, or normalized for variations in Gross Domestic Product, or adjusted for any other reason.

Without limiting the generality of the above, please provide the expert's view on making the shareholder incentive otherwise allocable to any rate class conditional on the average gas use per customer in that rate class declining on a weather normalized basis.

Response:

Conceptually, we could see potential merit to tying shareholder incentives to the level of actual gas sales in the future. One advantage of using actual gas sales as a performance metric is that it eliminates the need for addressing attribution questions (free ridership, net-to-gross adjustments, etc.). It could also encourage the Company to engage in customer education as well as efforts to promote longer-term market transformation and/or spillover effects that are hard to measure and are therefore not reflected in current performance metrics.

That said, we are unaware of any jurisdiction that currently rewards utility shareholders for efficiency program performance based on actual gas sales. That is probably at least partly because gas sales are affected by a range of factors that utilities see as outside of their control, including weather, the economy, the introduction of new energy consuming products to the market, etc. Another likely reason is that utilities prefer annual shareholder incentives and it would be difficult to see the effects of a broader portfolio of strategies in just 12 months. Thus, if it was to be considered in Ontario, we would suggest that it be a stand-alone performance metric, with a certain number of dollars attached to it, rather than a minimum requirement for earning incentives tied to other metrics or even a minimum requirement for collecting incentive dollars from a given rate class. We would also suggest only a modest portion of the shareholder incentive available to Enbridge be tied to actual sales, so that the concept could be tested without the stakes being too high. We would further suggest that the focus be on the longer-term – i.e., the level of sales at the end of the 2023-2027 plan period. That would allow for a sufficiently long period to begin to see the effects of customer education and market transformation initiatives. In other words, as we suggest in our report, this kind of metric could be a good substitute for the "long-term GHG reduction metric" proposed by the Company – though the 5% of shareholder incentives that Enbridge proposed for the long-term GHG reduction metric may not be enough to really drive a management focus on it.

As to whether a sales metric should reference total sales or be parsed into sales by rate class or to groupings of customers (e.g., residential customers, small/medium business customers, etc.), we are not

sure what would be the best approach. However, we would lean towards focusing on large groups of customers like residential and/or small/medium business customers. That said, we could also see potential merit in testing the concept on a relatively small but homogenous group of customers, such as schools.

Regardless of who the metric is applied to, the focus should be on weather-normalized consumption since so much gas is used for space heating and winters can vary quite a bit in their severity. For the business sector, it may be appropriate to focus on changes in energy intensity – i.e., gas consumption per unit of GDP – to control for fluctuations related to the state of the economy.

5.SEC.2.GEC/ED.1

[Ex. L.GEC/ED.1, p. 23, 38, 40] Please comment on whether the conflicting goals of Enbridge – increasing load and rate base vs. reducing load through energy efficiency – are a barrier to success in Enbridge DSM programs, including but not limited to the proposed Building Beyond Code and Low Carbon Transition programs. Please provide the expert's view on whether

a) assigning responsibility for delivery of DSM programs to an independent entity that has no incentive to increase load or rate base, or
b) leaving DSM program delivery with Enbridge but creating an independent supervisory body to whom the Enbridge DSM group would report,

could improve the effectiveness of DSM programs in Ontario. Please provide examples of this type of structure with which the expert has experience in other jurisdictions. Please comment on the extent, if any, to which such a structure necessarily must include both gas and electric conservation, as in some U.S. structures.

Response:

As suggested in our report, we believe that Enbridge has an inherent conflict of interest with respect to strategies for reducing greenhouse gas emissions and for optimizing fuel choices (particularly in new construction). The fact that the Company makes money by making capital investments in gas infrastructure also creates disincentives to lowering sales through efficiency programs. The lost revenue adjustment mechanism and shareholder incentive mechanism are intended, together, to counter such disincentives. While it is difficult to assess the extent to which these mechanisms offset the Company's financial incentives to invest in supply (particularly through capital investment in transmission and distribution, or T&D), we suspect – based in part on both the Company's historic resistance to significant increases in DSM savings and hesitation to investing in non-pipe alternatives – that current DSM incentive earnings do not fully offset related financial losses from lower capital investment in T&D. Moreover, even if DSM shareholder incentives were big enough to offset reductions in profits from capital investments in T&D, there is also likely to be a cultural resistance to overcome.

As stated in our response to 3-FRPO-GEC/ED-1, one of the advantages of assigning responsibility for DSM programs to an independent entity is that they do not have a fuel bias. Another is that because they do not sell energy, the size of the performance incentive one would need to pay to encourage excellent performance is likely to be smaller than what is required for utility administration. There are other potential advantages too. On the other hand, there are some advantages to utility administration as well. Ultimately, the answer to the question of whether the effectiveness of DSM programs would be increased by assigning responsibility to an independent third party would likely be primarily a function of the rules under which it would operate, particularly the level of flexibility it would have to adjust program offerings in response to market feedback. Being given confidential access to customer data though less important, would also help. How the gas utility responds – i.e., whether it at least provides customer referrals and does not try to undermine the third party – would likely also be an important

factor. If all of these things were optimized, we would expect third party administration to be more effective.

The question of whether the creation of an independent supervisory board would improve DSM effectiveness is difficult to answer in the abstract. It would likely depend on the authority of the Board and how it was managed.

5.SEC.3.GEC/ED.1

[Ex. L.GEC/ED.1, p. 24] Please advise whether Residential Savings in Table 5 includes all of Rates M1 (Union South) and 01 (Union North), which include substantial numbers of and volumes for commercial and industrial customers.

Response:

The residential savings values in Table 5 of our report are values Enbridge provided in Table 2: 2023 Annual Scorecard Targets in Exhibit D, Tab 1, Schedule 3, p. 4. In the same table Enbridge states that the savings are derived from its Residential Whole Home, Residential Single Measure and Residential Smart Home program offerings. Thus, we assume that they are just savings from residential customers. Enbridge could obviously confirm that.

6.SEC.4.GEC/ED.1

[Ex. L.GEC/ED.1, p. 16-17] Please provide the calculations behind Tables 2 and 3. Please advise whether future budgets in the tables are adjusted by both inflation and increases in customer numbers.

Response:

See attached Excel file.

The values in rows 1, 2 and 3 of both tables are nominal dollars (i.e., including the effects of inflation) as proposed by Enbridge. The values in row 4 of both tables are equal to $155 million in 2014 dollars, escalated by inflation to be comparable to the nominal dollar values in row 3. The values in row 6 of Table three are computed as a percent of nominal dollars of spending and are therefore also expressed in nominal dollars. Because rows 7 and 8 of Table 3 are derived from rows 6, they are also expressed in nominal dollars.

We did not adjust the $2/month per residential customer to account for increases in the number of customers. That would make our estimates of the degree to which spending could be increased while staying within a $2/month (2014 dollars) limit conservatively low.

6.SEC.5.GEC/ED.1

[Ex. L.GEC/ED.1, p. 17] Please provide the expert's view on how the Board should approach setting reasonable rate impacts for non-residential customers, such as schools.

Response:

Appendix A to *The National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources* (NSPM for DERs)[1] provides excellent guidance for how to think about rate impacts. To begin with, it notes that because most customers who participate in efficiency programs experience bill reductions (even if rates go up), concerns about rate impacts are really concerns about equity between program participants and non-participants. Thus, the NSPM for DERs suggests that regulators simultaneously consider trade-offs between bill impacts (how much are bills going down in aggregate), rate impacts (how much are rates going up) and participation rates (what fraction of customers are participating or likely to participate over a sufficiently long period of time). The bottom line is that that there is no purely mathematical or formulaic way to determine whether a rate impact is reasonable because it depends not only on the rate impact, but also on the magnitude of bill reductions that would be lost if DSM budgets are constrained and how widespread participation is likely to be over time.

For example, several years ago a study in Vermont estimated that an aggressive efficiency strategy would produce an average 7% reduction in electric bills (net of rate increases) for the more than 95% of residential customers who would be expected to participate in programs. The corresponding average increase in bills would be 4% to 5% for the fewer than 5% of customers who would not participate.[2] Most regulators would likely support a policy that lowered bills by 7% for 95% of customers while increasing them by 4-5% for the other 5%. Now consider an alternative hypothetical portfolio of efficiency programs that would produce an even greater average 10% reduction in bills for participants but would have a participation rate of only 5% of customers over the life of the program. That portfolio of programs may be less acceptable, even if the rate increase was half as large. Again, the reasonableness of rate impacts is contextual.

A couple of other points are also important to consider:

- When assessing rate impacts, it is important to consider the full range of factors that affect rates, including those (e.g., avoided T&D costs and market price suppression effects) that put downward pressure on rates;
- Assessments of participation rates needs to be over a relatively long period of time – e.g., 10 years – to account for the reality that opportunities for efficiency investments can vary considerably from year to year for individual customers.

[1] https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-DERs_08-24-2020.pdf
[2] Analysis of "high case" in Woolf, Tim, Erin Malone and Jenn Kallay (Synapse Energy Economics), *"Rate and Bill Impacts of Vermont Energy Efficiency Programs (from Proposed Long-Term Energy Efficiency Scenarios 2014-2034)"*, prepared for the Vermont Department of Public Service, April 23, 2014.

- There are mechanisms to mitigate equity concerns about rate impacts. One is to broaden the reach of DSM programs so that a larger fraction of customers will participate. Another is to consider amortizing costs over the life of efficiency measures rather than expensing the costs.

9j.SEC.6.GEC/ED.1

[Ex. L.GEC/ED.1, p. 31] Please confirm the expert's understanding that meeting the proposed Long-Term GHG Reduction metric does not actually reduce the production of GHGs by its customers or by Enbridge.

Response:

It depends on the reference point for the question. The Company's proposed long-term GHG reduction metric is not tied to actual emissions, so it would not necessarily result in a reduction in GHG emissions in absolute terms (i.e., relative to current levels). However, relative to a baseline of what would happen absent the Company's DSM programs, there would be GHG emission reductions.